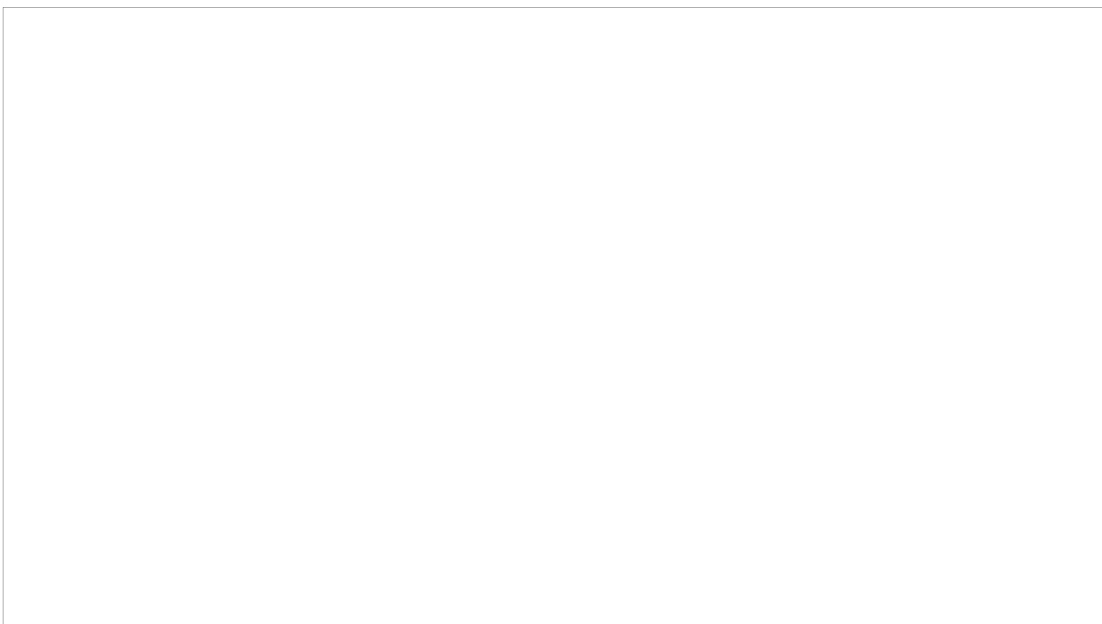
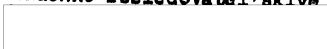


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Title: ALL-UNION SCIENTIFIC RESEARCH INSTITUTE OF AVIATION MATERIALS
(VIAM) (USSR)

Source: Nauchno-Issledovatel'skiye Instituty Tyazheloy Promyshlennosti


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CONFIDENTIAL**ALL-UNION SCIENTIFIC RESEARCH INSTITUTE OF AVIATION MATERIALS****(VIAM)**

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Location:

Moscow, No 17 Radio Ulitsa.

Telephone:

Ye-1-16-11

VIAM is subordinate to the Main Administration for the Aviation Industry, People's Commissariat of Heavy Industries (GUAP, NKTP).

Chief of the Institute:

V. M. Desyatnikov

Deputy Chief for Scientific Matters:

Prof I. I. Sidorin

Leading Scientific Workers:

Prof G. V. Akimov - metal studies

Prof V. O. Krenig - metal studies

Prof Ye. I. Savkov - wood materials studies

Engineer I. F. Andreyev - lacquer and dyes

Engineer N. F. Bocharov - glues and adhesives

Engineer S. S. Stroyev - ferrous metals

VIAM is the center for all theoretical and experimental research work on materials for the aviation industry. Investigations are made on materials produced domestically as well as those which are imported. The institute also renders technical aid to industries dealing with airplanes and the lighter-than-air craft.

VIAM renders technical aid to industries on the following questions:

Special steels for use in plane and engine construction

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Nitriding of steels

Forging and stamping of parts to be used in the aviation industry

Determination of the characteristics of steels relative to the nature of the forging and stamping operations

Annealing of steels

Casting of very light metals in earthen molds

Aluminum alloys and titanium

Stamping and pressing of light and ultra-light alloys (for pistons, blades and other parts for engines and planes)

Rolling of aluminum alloys

New anti-friction alloys

Utilization of ultra-light magnesium alloys

Smelting in high-frequency furnaces

Manufacture of crucibles to be used in high frequency furnaces

Gas and electrical welding of thin walled parts

Methods for the preparation of samples for use in microscope studies. Methods for conducting metallographic studies and thermal and magnetic analysis.

Static and dynamic testing of steels

Methods for conducting various technological tests

Method for the control of corrosion of metals

Various problems related to galvanic plating

Selection of stainless and non-rusting and corrosion-resistant steels as well as steels which are suitable for use under conditions of high temperature

Organization of X-ray laboratories for structural analysis

X-ray analysis of annealing operations

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X-ray analysis of cold deformation and deformation under
 high-temperature conditions
 Methods for the analysis[#] of special steels and nonferrous metals
 Methods for the selection of wood to be utilized in the avia-
 tion industry
 Methods for investigating and controlling the physico-mechani-
 cal properties of materials
 Methods for rapid drying of woods to be used in the aviation
 industry
 Methods for the mycological analysis of woods
 Methods for the storage and transportation of woods to be used
 in the aviation industry
 Methods for the mechanical working of woods to be used in
 the aviation industry
 Methods for bonding woods to be used in the aviation industry
 Lacquers and dyes best suited for use in the aviation in-
 dustry
 Selection of equipment for plant lacquer-dye laboratories
 Various methods for studying the quality of glues and
 bonding materials
 Chemical analysis of special steels and nonferrous metals
 Methods for testing the plasticity of shock absorbers to
 be used in airplane construction

Note: The article contains[#] several pictures. One shows the mechani-
 cal laboratory of VIAM; another picture depicts a rather simple and
 obsolescent piece of equipment which is used for testing the corrosion
 factors of steels; another picture shows an apparatus for determining the

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resin content in woods; another shows two pieces of apparatus which are to be used for testing wood for elongation and compression.

VIAM maintains liaison with several foreign institutions. Among them are: Council for Scientific and Industrial Research, Division of Forest Products, East Melbourne, Australia; Forest Products Research Laboratory, Princess Risborough Bucks ~~EN~~, and the National Physical Laboratory at Teddington in England; Materialprüfungsanstalt in Berlin, Germany.

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